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ABSTRACT

This paper summarizes the findings of three studies used to develop a language assessment instrument and to explore the relationships between language, cognitive development, and reading achievement in poor children. A sentence repetition task provided scores for function word omission, function word correct and reconstruction word correct. These scores were found to be correlated with reading ability and problems. The sentence repetition task also identifies four distinctly different groups: children who are delayed in language development and who use either standard or non-standard vernacular, and children who are at a normal level of language development who use either standard or non-standard vernacular. The procedure and task can be used by the classroom teacher in assessing language development in kindergarten through third grade. Findings are discussed in terms of the cognitive deficit-culturally different controversy. (ED)

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LANGUAGE RECONSTRUCTIONS AS AN INDICATOR OF COGNITIVE FUNCTIONING OF K-THIRD GRADERS

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During the 1960's a great deal of developmental research focused on the cognitive deficit-cultural difference controversy. It is not surprising that the controversy focused on language differences given the verbal nature of schooling and the large proportion of verbal items on intellectual and achievement measures. It became quite apparent to those who worked in programs designed for poverty children, that the language of these children was markedly different from that of the middle class child. Some psychologists and educators suggested that these language differences were evidence for the cognitive deficit position. Whereas, those supporting the culturally different position have argued that the surface structure characteristics of poverty children's language simply reflect the culture and the vernacular of that culture. Stated simply, the child acquires the language of his cultural environment; and as Labov and other linguists have argued, all languages and language variants are functionally equivalent for expressing semantic notions.

We were concerned with this basic question: Are poverty children, as compared to advantaged children delayed in language development when possible differences in cognitive development and the use of non-standard vernacular are held constant? Since many standardized measures of language development have been criticized and considered inappropriate for culturally different children, a prior question was: How can we assess language development and take into account the used non-standard vernacular?

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Our basic belief was that the process of translating standard vernacular forms into non-standard vernacular involves active cognitive functioning on the part of the child. This belief lead us to a series of studies in developing a language assessment instrument and exploring the relationships between language, cognitive development, and reading achievement in poverty children. This paper summarizes three of these studies and our findings as they relate to cognitive deficit-culturally different controversy.

In an attempt to develop a language instrument which could be used with a wide range of subcultural groups, we drew primarily upon the work of Menyuk, Slobin, and Baratz. The sentence repetition technique was thought to be most appropriate for culturally different children since the child is required to simply repeat the stimulus sentence exactly as he heard it. The sentence repetition task developed includes a number of different syntactic structures and function forms. In addition, each sentence includes standard vernacular forms which have a parallel form in non-standard vernacular.

The scoring procedure focuses on two categories of words; what we call function words and reconstruction words. Neisser defined function words as words which have semantic content as relational terms in sentences. Common function words are 'although', 'because', 'now', 'whose', and 'what'.

Brown, Menyuk, and Slobin have demonstrated that many function forms are omitted in the spontaneous speech samples and sentence repetitions of young children. The proposition is that

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children will tend to omit function forms which are beyond their level of development; and consequently function word omissions have been considered an appropriate measure of language development.

Four function word scores are obtained from the sentence repetition task. These are

a. function word omissions, which is the number of function words omitted

b. function words correct - verbatim responses

c. function word substitutions - with in class substitutions which maintain the meaning of the sentence

d. function word errors - inappropriate or incorrect responses

The reconstruction word category was developed from the work of Baratz and Labov. The previous evidence suggested that culturally different children tend to reconstruct standard vernacular sentences into their own vernacular. The reconstruction word category is scored for correct repetitions, reconstructions, omissions (these are omissions not common to the vernacular), and errors.

An initial study was conducted with two forms of the sentence repetition task in order to identify sentence structures which discriminated between the age groups within subcultural groups. This pilot study also provided data for validating the scoring procedures. This study included samples of normal black inner-city and white middle-class children, as well as a sample of educable mentally retarded children. The test-retest reliability of .96 for function word omissions and .92 for reconstructions was

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also established as a part of this study. In general, the results indicated that age and mental development were significant effects for function word omission scores. That is function word omissions decreased with age for normal children and was related to level of mental development in comparisons of normal and EMR children.

Based on the findings of this first study, a second version of the sentence repetition task was developed which included 23 stimulus sentences. This task was administered to samples of black inner-city and white rural poverty children, as well as a sample of white middle-class children. In addition, a Piagetian discrimination, seriating and numeration task was administered in order to obtain a measure of cognitive development. The results of this study indicated that the sample of black inner-city children reconstructed 58% of the total number of reconstruction words, and more importantly this level of reconstruction was consistent from kindergarten through second grade. Significant differences between poverty and middle-class samples were found on function word omissions and Piagetian task scores. However, when the differences in level of cognitive development were covaried out there were no significant differences in language development between black inner-city and white middle-class samples.

The latest study, that we are presently concluding, included a sample of approximately 1000 poverty children in three settings: New York City, Atlantic City, N.J., and rural Tennessee. The major question for this study was: What is the relationship between the language measures obtained from the sentence repetition

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task and reading achievement in poverty children. This study is particularly interesting in that we have been able to relate specific measures from the sentence repetition task to reading achievement in three distinctly different samples; black inner-city, Puerto Rican bilingual, and white rural children.

Some of the major findings of the study were:

(1) Function word omission scores were negatively correlated with reading achievement (Met. Ach. Test) - That is children who tend to omit a large number of function words also have lower reading scores.

(2) Function word correct scores were positively related to MAT reading scores - These findings support the commonly held belief in the relationship between language development and reading.

(3) The number of words reconstructed was negatively correlated with MAT reading scores. This suggests that children who consistently use a non-standard vernacular also have problems in reading.

(4) The total number of reconstruction words correct (including words that were actually reconstructed and verbatim responses) was positively correlated with MAT reading scores.

(5) Analyses of variance indicated that;
   a. improvement with age across all subcultural groups for function word omission, function word correct and reconstruction word correct scores.
   b. there was consistent reconstruction across all samples with only a small, but significant decrease in the tendency to reconstruct across grade levels.

In general the results of these studies indicate that the sentence repetition task does identify four distinctly different groups:

(1) children who consistently use a non-standard vernacular and are delayed in language development.

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(2) children who consistently use a non-standard vernacular but at a normal level of language development.

(3) children who may be delayed in language development use a standard vernacular.

(4) children who use a standard vernacular and are at a normal level of language development.

In conclusion we do not mean to imply that all children of the same age are at the same level of language development or cognitive development. What we are suggesting is that this procedure and task can be used by the classroom teacher in assessing language development. Based on the performance of the child, the teacher can systematically plan experiences as a means of facilitating the language acquisition process for the child.